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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,943	12/31/2001	Joon-Young Jung	123054-05005237	5261
22429	7590	04/29/2009	EXAMINER	
LOWE HAUPTMAN HAM & BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314				EKPO, NNENNA NGOZI
ART UNIT		PAPER NUMBER		
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			04/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/029,943	JUNG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nnenna N. Ekpo	2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 January 2009.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 2-13 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 2-13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Acknowledgement***

1. This Office Action is responsive to the arguments filed on January 29, 2009.

### ***Response to Arguments***

2. Applicant's arguments filed 01/29/2009 regarding claim 3 have been fully considered but they are not persuasive.

Applicant argues on page 9+ of the Remarks that neither McGarrahan (2003/0026424), Kuh (6,785,903) nor Lajoie et al. (5,850,218), taken alone or in combination teaches protocol converting.

In response to applicant's argument, Examiner respectfully disagrees. Lajoie et al. discloses protocol converting in col. 2, lines 59-col. 3, lines 2, col.12, lines 60-col. 13, line 5, protocol conversion is that which converts information from one format to another and the system on col. 2, lines 59-col. 3, lines 2 converts the satellite signals into another format.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 2, 4, 6, 7, 9, 11-13 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The newly amended **claims 6-8** are rejected under 35 U.S.C. 101 because the claims did not positively recite other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the methods steps.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 3-7 and 9-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over McGarrahan et al. (U.S. Publication No. 2003/0026424) in view of Kuh (U.S. Patent No. 6,785,903) and LaJoie et al. (U.S. Patent No. 5,850,218).

Regarding **claim 3**, McGarrahan et al. discloses a protocol data extractor for demultiplexing the terrestrial broadcasting TS or the satellite broadcasting TS, extracting audio/video (A/V) data and program data from the terrestrial broadcasting TS, and extracting A/V data and data from the satellite broadcasting TS (see cited portion, but not limited to paragraph 0032, lines 1-7); a protocol data converter for using the Program data or the Information data extracted by the protocol data extractor, and generating Program data of a corresponding digital cable television broadcasting standard (see cited portion, but not limited to paragraph 0062, lines 37-46);

a protocol data inserter for inserting the digital cable television broadcasting standard Program data generated by the protocol data converter into the A/V data extracted by the protocol data extractor through TS multiplexing, and generating a digital cable broadcasting TS (see cited portion, but not limited to paragraph 0028);

the data input by a system manager through the user interface, and the data stored in a database to configure data needed for generating the digital cable broadcasting (see cited portion, but not limited to paragraph 0027 and 0060).

However, McGarrahah et al. fail to specifically disclose PSIP/PSI and a system controller for checking states of the protocol data extractor, the protocol data converter and the protocol data inserter, controlling their operation and converting the received satellite DVB video into a different protocol.

Kuh discloses PSIP/PSI (see cited portion, but not limited to col. 4, lines 8-20, col. 5, lines 17-32) and a system controller for checking states of the protocol data extractor, the protocol data converter and the protocol data inserter, and controlling their operation (see cited portion, but not limited to col. 4, lines 57-col. 5, line 2);

a table data manager for receiving the terrestrial broadcasting PSIP/PSI data or the satellite broadcasting SI/PSI data from the protocol data extractor, splitting them according to tables corresponding to the PSIP or the SI and the PSI, and extracting data for generating the digital cable broadcasting PSIP/PSI tables (see cited portion, but not limited to col. 1, lines 65-67, col. 2, lines 1-18);

a common protocol data manager for using the data extracted by the table data manager (see cited portion, but not limited to col. 4, lines 29-32);

a scheduler for outputting control signals corresponding to each table generation period of the digital cable broadcasting PSIP/PSI (see cited portion, but not limited to col. 2, lines 66-67, col. 3, lines 1-25); and

a PSIP/PSI table generator for generating the digital cable broadcasting PSIP/PSI table by using the data input by the common protocol data manager according to the control signal output by the scheduler, and outputting the same to the protocol data inserter (see cited portion, but not limited to col. 5, lines 17-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al.'s invention with the above mentioned limitation as taught by Kuh for the advantage of properly reflecting a new transmit carrier frequency and channel number, thus preventing tuning problems with some digital television receivers due to incorrect PSIP table information and also for the advantage of maintaining the out-of-band service information.

However, McGarrahan et al. and Kuh are silent on converting the received satellite DVB video into a different protocol.

LaJoie et al. discloses converting the received satellite DVB video into a different protocol (see col. 2, lines 59-col. 3, lines 2, col.12, lines 60-col. 13, line 5, protocol conversion is that which converts information from one format to another and the system on col. 2, lines 59-col. 3, lines 2 converts the satellite signals into another format).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al. and Kuh's invention with

the above mentioned limitation as taught by LaJoie et al. for the advantage of compatibility.

Regarding **claim 4**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (see *claim 3*). Kuh discloses the PSIP converter, wherein the PSIP/PSI table generator is arranged for transmitting the digital cable broadcasting PSIP data to a PSIP server through a predetermined network so that the digital cable broadcasting PSIP data are included in the digital cable SI data and transmitted to a subscriber, the PSIP server transmitting the digital cable SI data to the subscriber through an out-of-band channel (see cited portion, but not limited to col. 2, lines 66-67, col. 3, lines 1-25).

Regarding **claim 5**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (see *claim 3*). Kuh discloses the PSIP converter, further comprising:

a TS data receiver for receiving the terrestrial broadcasting PSIP/PSI data or the satellite broadcasting SI/PSI data from the protocol data extractor (see cited portion, but not limited to col. 4, lines 29-46, figs 2, 3); and

a TS packet data generator for configuring the digital cable broadcasting PSIP/PSI table generated by the PSIP/PSI table generator into MPEG-2 TS packets, and transmitting said packets to the protocol data inserter (see cited portion, but not limited to col. 4, lines 11-20).

Regarding **claim 6**, McGarrahan et al. discloses

(a) receiving a program information description (PID) needed for analyzing the terrestrial broadcasting TS or the satellite broadcasting TS (see cited portion, but not limited to paragraph 0032, lines 1-3 (terrestrial broadcasting TS)), information needed for protocol conversion (see cited portion, but not limited to paragraph 0029), and data for other controls from a user (see cited portion, but not limited to paragraph 0057);

(b) converting the terrestrial broadcasting TS or the satellite broadcasting TS into an internally processed bit rate format (see cited portion, but not limited to paragraph 0037 (satellite broadcasting TS, 104));

(c) filtering the converted terrestrial broadcasting TS or the satellite broadcasting TS using the PID to extract A/V data and data from the terrestrial broadcasting TS and extract A/V data and data from the satellite broadcasting TS (see cited portion, but not limited to paragraph 0032, lines 1-7).

However, McGarrahan et al. fails to specifically disclose PSIP, (d) analyzing the extracted PSIP/PSI data or the SI/PSI data to generate the corresponding digital cable broadcasting PSIP/PSI data; and (e) receiving the digital cable broadcasting PSIP/PSI data in (d) and the extracted A/V data in (c), performing TS multiplexing on them, and outputting them in the digital cable broadcasting TS, converting the received satellite DVB video into a different protocol, (d1) splitting the PSIP/PSI data extracted from the terrestrial broadcasting TS or the SI/PSI data extracted from the satellite broadcasting TS according to tables

corresponding to the PSIP or the SI and the PSI, and extracting data for generating respective digital cable broadcasting PSIP/PSI table; (d2) using the data extracted in (d1), data inputted by a system manager through an user interface, and data stored in a database to configure data needed for generating the digital cable broadcasting PSIP/PSI tables; (d3) outputting control signals corresponding to each table generation period of the digital cable broadcasting PSIP/PSI tables; and (d4) generating the digital cable broadcasting PSIP/PSI tables by using the data configured at (d2) according to the control signals outputted at (d3).

Kuh discloses PSIP/PSI (see cited portion, but not limited to col. 4, lines 8-20, col. 5, lines 17-32),

(d) analyzing the extracted PSIP/PSI data or the SI/PSI data to generate the corresponding digital cable broadcasting PSIP/PSI data (see cited portion, but not limited to col. 5, lines 17-32); and

(e) receiving the digital cable broadcasting PSIP/PSI data in (d) and the extracted A/V data in (c), performing TS multiplexing on them, and outputting them in the digital cable broadcasting TS (see cited portion, but not limited to col. 5, lines 52-66, col. 6, lines 1-9 and fig 5);

(d1) splitting the PSIP/PSI data extracted from the terrestrial broadcasting TS or the SI/PSI data extracted from the satellite broadcasting TS according to tables corresponding to the PSIP or the SI and the PSI, and extracting data for generating respective digital cable broadcasting PSIP/PSI table (see col. 5, lines 53-col. 6, line 9);

(d2) using the data extracted in (d1), data inputted by a system manager through an user interface, and data stored in a database to configure data needed for generating the digital cable broadcasting PSIP/PSI tables (see col. 5, lines 17-32);

(d3) outputting control signals corresponding to each table generation period of the digital cable broadcasting PSIP/PSI tables (see col. 4, lines 4-20); and

(d4) generating the digital cable broadcasting PSIP/PSI tables by using the data configured at (d2) according to the control signals outputted at (d3) (see col. 2, lines 50-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al.'s invention with the above mentioned limitation as taught by Kuh for the advantage of properly reflecting a new transmit carrier frequency and channel number, thus preventing tuning problems with some digital television receivers due to incorrect PSIP table information and also for the advantage of maintaining the out-of-band service information.

However, McGarrahan et al. and Kuh are silent on converting the received satellite DVB video into a different protocol.

LaJoie et al. discloses converting the received satellite DVB video into a different protocol (see col. 2, lines 59-col. 3, lines 2, col.12, lines 60-col. 13, line 5, protocol conversion is that which converts information from one format to another and the system on col. 2, lines 59-col. 3, lines 2 converts the satellite signals into another format).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al. and Kuh's invention with the above mentioned limitation as taught by LaJoie et al. for the advantage of compatibility.

Regarding **claim 7**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (see *claim 6*). Kuh discloses the PSIP conversion method, further comprising:

including the digital cable broadcasting PSIP data in (d) in the digital cable SI data and transmitting the digital cable SI data inclusive of the digital cable broadcasting PSIP data transmitted to a subscriber through an out-of-band channel, and transmitting them to the subscriber (see cited portion, but not limited to fig 6, col. 6, lines 26-45, data is being transmitted to the subscribers at different frequencies (f0, f1 and f2)), wherein said including is performed independently of said TS multiplexing at (e) (see col. 5, lines 53-62).

Regarding **claim 9**, McGarrahan et al. discloses a plurality of first and second broadcasting signal demodulators for demodulating the digital terrestrial broadcasting signals and the digital satellite television broadcasting signals, respectively, and outputting the demodulated signals in terrestrial broadcasting transport streams (TS) and satellite broadcasting TS, respectively (see cited portion, but not limited to paragraph 0027, lines 12-16 (terrestrial), paragraph 0046 (satellite)); the

data input by a system manager through the user interface, and the data stored in a database to configure data needed for generating the digital cable broadcasting (see cited portion, but not limited to paragraph 0027 and 0060).

However, McGarrahan et al. fails to specifically disclose a plurality of first and second program and system information protocol (PSIP) converters for analyzing the terrestrial broadcasting TS and the satellite broadcasting TS output by the broadcasting signal demodulators, respectively, converting a terrestrial broadcasting PSIP/PSI table and a satellite television broadcasting SI/PSI table for transmitting program and system information into PSIP/PSI tables of a corresponding digital cable television broadcasting standard, respectively and outputting a cable broadcasting TS;

a plurality of broadcasting signal modulators for modulating the cable broadcasting TS output by the PSIP converters;

a plurality of up-converters for converting the cable broadcasting TS modulated by the broadcasting signal modulators into radio frequency (RF) signals;

a mixer for mixing the cable broadcasting TS converted by the up-converters, and outputting them to a cable connected to a subscriber and converting the received satellite DVB video into a different protocol.

Kuh discloses a plurality of first and second program and system information protocol (PSIP) converters for analyzing the terrestrial broadcasting TS and the satellite broadcasting TS output by the broadcasting signal demodulators, respectively, converting a terrestrial broadcasting PSIP/PSI table and a satellite television broadcasting SI/PSI table extracted from the analyzed TS into digital cable broadcasting

PSIP/PSI tables, respectively, and outputting a cable broadcasting TS based on the digital cable broadcasting PSIP/PSI tables (see cited portion, but not limited to col. 4, lines 4-20 (satellite), col. 5, lines 3-5 (terrestrial));

a plurality of broadcasting signal modulators for modulating the cable broadcasting TS outputted by the PSIP converters (see cited portion, but not limited to col. 5, lines 33-51);

a plurality of up-converters for converting the cable broadcasting TS modulated by the broadcasting signal modulators into radio frequency (RF) signals (see cited portion, but not limited to col. 1, lines 52-52, col. 5, lines 8-16); and

a mixer for mixing the cable broadcasting TS converted by the up-converters, and transmitting the mixed cable broadcasting TS, via a cable to a subscriber; (see cited portion, but not limited to fig 5 (28), col. 5, lines 58-61);

a table data manager for receiving the terrestrial broadcasting PSIP/PSI data or the satellite broadcasting SI/PSI data from the protocol data extractor, splitting them according to tables corresponding to the PSIP or the SI and the PSI, and extracting data for generating the digital cable broadcasting PSIP/PSI tables (see cited portion, but not limited to col. 1, lines 65-67, col. 2, lines 1-18);

a common protocol data manager for using the data extracted by the table data manager (see cited portion, but not limited to col. 4, lines 29-32);

a scheduler for outputting control signals corresponding to each table generation period of the digital cable broadcasting PSIP/PSI (see cited portion, but not limited to col. 2, lines 66-67, col. 3, lines 1-25); and

a PSIP/PSI table generator for generating the digital cable broadcasting PSIP/PSI table by using the data input by the common protocol data manager according to the control signal output by the scheduler, and outputting the same to the protocol data inserter (see cited portion, but not limited to col. 5, lines 17-32).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al.'s invention with the above mentioned limitation as taught by Kuh for the advantage of properly reflecting a new transmit carrier frequency and channel number, thus preventing tuning problems with some digital television receivers due to incorrect PSIP table information and also for the advantage of maintaining the out-of-band service information.

However, McGarrahan et al. and Kuh are silent on converting the received satellite DVB video into a different protocol.

LaJoie et al. discloses converting the received satellite DVB video into a different protocol (see col. 2, lines 59-col. 3, lines 2, col.12, lines 60-col. 13, line 5, protocol conversion is that which converts information from one format to another and the system on col. 2, lines 59-col. 3, lines 2 converts the satellite signals into another format).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al. and Kuh's invention with the above mentioned limitation as taught by LaJoie et al. for the advantage of compatibility.

Regarding **claim 10**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (*see claim 9*). McGarrahan et al. discloses the digital cable television broadcasting system, further comprising:

a terrestrial broadcasting antenna for receiving the digital terrestrial broadcasting and outputting corresponding broadcasting signals to the first broadcasting signal demodulator (see cited portion, but not limited to paragraph 0009, lines 1-11); and  
a satellite broadcasting antenna for receiving the digital satellite television broadcasting and outputting corresponding broadcasting signals to the second broadcasting signal demodulator (see cited portion, but not limited to paragraph 0025, 0029-0030).

Regarding **claim 11**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (*see claim 9*). Kuh discloses the digital cable television broadcasting system, further comprising:

a PSIP server for receiving digital cable broadcasting PSIP/PSI table generated by the PSIP converters, and including the received digital cable broadcasting PSIP/PSI table in digital cable SI data to be transmitted to the subscriber via an out-of-band channel (see cited portion, but not limited to col. 2, lines 66-67-col. 3, lines 1-25);  
an out-of-band channel signal modulator for modulating the digital cable SI data generated by the PSIP server, and transmitting the modulated digital cable SI data to the subscriber through the out-of-band channel (see cited portion, but not limited to col.

4, lines 29-46, the PSIP server transmits the out-of-band channel (different channels) to the subscribers)); and

an out-of-band channel network controller for controlling the cable SI data transmitted to the out-of-band channel signal modulator from the PSIP server (see cited portion, but not limited to col. 4, lines 15-20, out-of-band channels are considered to be the major and minor channel numbers).

Regarding **claim 12**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (*see claim 9*). McGarrahan et al. discloses the digital cable television broadcasting system, wherein the converter further comprises:

a protocol data extractor for demultiplexing the terrestrial broadcasting TS and extracting audio/video (A/V) data and data from the terrestrial broadcasting TS (see cited portion, but not limited to paragraph 0032, lines 1-7);

said protocol data converter for using the data extracted by the protocol data extractor to generate data of a corresponding digital cable television broadcasting standard in form of the digital cable broadcasting PSIP/PSI table (see cited portion, but not limited to paragraph 0062, lines 37-46);

a protocol data inserter for inserting the data generated by the protocol data converter into the A/V data extracted by the protocol data extractor through TS multiplexing, and generating the digital cable broadcasting TS see cited portion, but not limited to paragraph 0028).

Kuh discloses PSIP/PSI (see cited portion, but not limited to col. 4, lines 8-20, col. 5, lines 17-32), a system controller for checking states of the protocol data extractor, the protocol data converter and the protocol data inserter, and controlling their operation (see cited portion, but not limited to col. 4, lines 57-col. 5, line 2) and a first converter (see fig 1).

Regarding **claim 13**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (see *claim 9*). Kuh discloses the digital cable television broadcasting system, wherein the second PSIP converter comprises:

a protocol data extractor for demultiplexing the satellite broadcasting TS and extracting A/V data and SI/PSI data from the satellite broadcasting TS (see cited portion, but not limited to col. 5, lines 17-24),

a system controller for checking and controlling the protocol data extractor, the protocol data converter, and the protocol data inserter (see cited portion, but not limited to col. 4, lines 57-col. 5, line 2).

McGarrahan et al. discloses said protocol data converter for using the SI/PSI data extracted by the protocol data extractor to generate PSIP/PSI data of a corresponding digital cable television broadcasting standard in form of the digital cable broadcasting PSIP/PSI table (see cited portion, but not limited to paragraph 0062, lines 37-46);

a protocol data inserter for inserting the PSIP/PSI data generated by the protocol data converter into the A/V data extracted by the protocol data extractor through TS

multiplexing, and generating digital cable broadcasting TS (see cited portion, but not limited to paragraph 0028).

7. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over McGarrahan et al. (U.S. Publication No. 2003/0026424), Kuh (U.S. Patent No. 6,785,903) and LaJoie et al. (U.S. Patent No. 5,850,218) as applied to claim 3 above, and further in view of Rebec et al. (U.S. Patent No. 5,740,214).

Regarding **claim 2**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above (see *claim 1*). Kuh discloses the PSIP converter further comprising:

a TS receiver for receiving the terrestrial broadcasting TS or the satellite broadcasting TS, and transmitting the same to the protocol data extractor (see cited portion, but not limited to figs 2, 3, col. 4, lines 6-17 (satellite));

a TS transmitter for outputting the digital cable broadcasting TS generated by the protocol data inserter to the outside (see cited portion, but not limited to col. 4, lines 47-56)

PSIP/PSI (cited portion, but not limited to col. 4, lines 8-20, col. 5, lines 17-32).

McGarrahan et al. discloses a user interface for receiving information and control data needed for generating the data of the digital cable television broadcasting standard (see cited portion, but not limited to paragraph 0027).

However, McGarrahan et al., Kuh and LaJoie et al. fail to specifically disclose said user interface is coupled to said protocol data converter.

Rebec et al. discloses said user interface (see fig 8 (830S)) is coupled to said protocol data converter (see fig 8 (855SA)) (see fig 8 (830S), (855SA)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al., Kuh and LaJoie et al.'s invention with the above mentioned limitation as taught by Rebec et al. for the advantage of transmitting information from one location to another.

8. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over McGarrahan et al. (U.S. Publication No. 2003/0026424), Kuh (U.S. Patent No. 6,785,903) and LaJoie et al. (U.S. Patent No. 5,850,218) as applied to *claim 6* above, and further in view of Jung et al. (U.S. Patent No. 6,038,232).

Regarding **claim 8**, McGarrahan et al., Kuh and LaJoie et al. discloses everything claimed as applied above. However, McGarrahan et al., Kuh and LaJoie et al. fail to specifically disclose the multiplexing process in (e) comprises:

amending variations of a program clock reference (PCR), and converting the multiplexed TS according to an output bit rate.

Jung et al. discloses the multiplexing process in (e) comprises:  
amending variations of a program clock reference (PCR), and converting the multiplexed TS according to an output bit rate (see col. 2, lines 3-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify McGarrahan et al., Kuh and LaJoie et al.'s invention with the above mentioned limitation as taught by Jung et al. for the advantage of using the multiplexer to employ program map table and program association table buffers having simplified interface and using FIFO.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nnenna N. Ekpo whose telephone number is 571-270-

1663. The examiner can normally be reached on Monday - Friday 7:30 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nnenna N. Ekpo/  
Patent Examiner  
April 24, 2009

/Brian T. Pendleton/  
Supervisory Patent Examiner, Art Unit 2425